

REMARKS

This Request for Reconsideration is filed in response to the Office Action mailed July 18, 2005 in which claims 14-29 were allowed, claims 1-13 and 30-35 were rejected and claims 36 -37 were objected to.

Regarding the 35 U.S.C. §102(e) rejection of claims 1-13, 32 and 35 as lacking novelty based on Gallagher et al. (U.S. 5,971,804), the Examiner points to column 13, lines 31-32 for showing a plurality of shelves, evidently because the word “shelves” is used in connection with the reference numerals 204, 206 in Fig. 11G of Gallagher et al. The Examiner also points to Fig. 7 for showing each shelf for connection to different equipment of a downstream subscriber equipment by a means of line termination equipment, wherein each of the plurality of shelves has a same nonredundant feature, again pointing to column 13, but this time to lines 28-33, i.e., the first full paragraph in column 13, not just the last sentence thereof.

It is not clear from this citation of column 13, lines 28-33 exactly what the Examiner means by setting up a correspondence between the claimed “same nonredundant feature” and column 13, lines 28-33. The description of the back of the module 28 of Fig. 11G as provided in column 13 at lines 28-33 is simply a description of the structure of the chassis 200 as constructed with four rear openings 252a, 252b, 252c 252d to enable the emergence of the backs of four of the modules 28. The description just says that if a module is put into one of the openings in the front of the chassis 200 then its connector (see Fig. 5B) will stick out the back. The modules 28 are not described as being used redundantly.

Regarding the second element of claim 1, the Examiner points to column 11, lines 15-24 which are the concluding sentences of the paragraph beginning on column 10, line 53 describing Figs. 5G and 5H which show the front panel bezels 110 of the data mover (Fig. 5G) and the control station (Fig. 5H). These two figures

5G and 5H show card slots within the individual modules 20₁ and 22₁ and they are described in the cited passage as holding a pair of redundant Network I/O cards as well as a pair of Ethernet transceiver cards with further reference to Fig. 7.

The present invention is concerned with a similar situation, except where line termination equipment is used in pairs for purposes of redundancy.

Regarding the third element of claim 1, the Examiner points to column 16, lines 43-58 which pertain to the details of a redundant Ethernet bus 262f and 262r as pictured in Figs. 13A and 13B. It is clear from Figs. 13A and 13B that the Ethernet bus disclosed by Gallagher et al. is in fact a redundant Ethernet bus (see column 16, line 66) as well as the discussion in connection with Fig. 8 at reference numerals 24a and 24b starting at column 6, line 56 (see particularly line 60). In other words, the redundancy mentioned in connection with the Ethernet busses 24a, 24b of Fig. 8 of Gallagher et al. makes it clear that the shelf bus of Gallagher et al. for interconnecting the processing unit modules 28 is also redundant.

In order for the Examiner's analysis to hold, one of the redundant I/O adapter boards of Gallagher et al. would have to be disclosed by Gallagher et al. as being for use in the shelf in association with a same nonredundant feature thereof and the remaining I/O adapter board of the pair for use in another shelf in association with the same nonredundant feature with the shelves connected in such a way as the effect is to provide the same nonredundant feature redundantly, as claimed.

This has not been done and consequently the Examiner's analysis of claim 1 is incorrect.

Regarding claim 2, as was mentioned in connection with the rejection of claim 1, the shelf bus of Gallagher et al. is not nonredundant and is in fact disclosed as being redundant. Therefore, the Examiner's statements are incorrect concerning the shelf bus of Gallagher et al.

Please note that claim 1, from which claim 2 depends requires in the third element thereof that the means for connecting the at least one shelf and the another shelf is for providing the nonredundant feature redundantly. In the case of the present invention, as claimed in claim 2, where the backplane is not provided redundantly (contrary to the case for Gallagher et al.), the nonredundant feature i.e., the nonredundant backplane is provided redundantly in the case of the redundant line termination equipment by placing one line termination equipment in one shelf and the other in another shelf.

Usually in the prior art the redundant line termination equipment will be put in the same shelf (see a similar situation in Gallagher et al. where redundant I/O adapter boards are used) and the backplane is provided redundantly. The applicant perceived that the backplane could be provided nonredundantly in such a way that it could still be used redundantly. The prior art would assume that, in such a case, both cards would suffer from this nonredundancy if there was a failure in the backplane. However, in a case where the line termination cards of the pair are for use, according to the present invention, in different shelves, such a nonredundancy problem of the backplane for instance in the backplane at a point connecting to a shelf is avoided because the two cards of the redundant pair would not be exposed to a same failure point of the nonredundant backplane.

Therefore, the 35 U.S.C. §102(e) rejection of claims 1 and 2 is incorrect and withdrawal thereof is requested.

Regarding the 35 U.S.C. §102(e) rejection of claim 3, the Examiner points to the module 28 as corresponding to the claimed hub, pointing to Fig. 7. However, the module 28 of Fig. 7 (and the other figures of Gallagher et al) is simply a plug-in module for plugging into one of the bays of the chassis 200 as best shown in Fig. 11F and as also shown schematically in Fig. 4C. As such, the module 28 is one of a plurality of modules plugged into the data server 10 shown in Fig. 2 and 3A-3C and

4A-4C. It is not correct to read the hub of claim 3 onto the module 28 of Gallagher et al because it is not capable of meeting the limitations of either the first element or the second element of claim 3. In the preamble, it is stated the telecommunications system is for connection to an upstream network service provider for providing a service to downstream subscriber equipment. Such as illustrated for instance by the services provided on the lines 116 of Fig. 4 of the present application. The system is further claimed in the first element of claim 3, as further shown in Fig. 4, as comprising a hub (90) including network termination equipment (NT) for connection to the upstream network service provider and including line termination equipment connected to the network termination equipment for connection to different equipment. This different equipment would correspond to the services lines emanating from the right hand side of the remote devices 96, 98 of Fig. 4 of the present disclosure, for example.

Regarding the second element of claim 3, i.e., “at least one remote device (96, 98),” the Examiner points to column 6, lines 55-67 which refers to Figure 8 of Gallagher et al but it is not clear what the Examiner is referring to except perhaps viewing the various modules within the data server 10 as being remote from each other or perhaps remote from the control stations 22. But these are not remote devices and are all housed within the same cabinet 10. Such an interpretation is not tenable also for the reason that the claimed remote device is connected to a line termination equipment of the hub, the remote device including network termination equipment (see Fig. 4 of the present disclosure for example where DS3 NT devices are shown connected to line termination equipment (92, 94) of the hub 90), and also connected to line termination equipment of the remote device. The control stations 22₁ and 22₂ of Fig. 8 of Gallagher et al. are not connected to line termination equipment but simply to the network 14 of Fig. 1. Only the modules 28 are connected to the Symmetrix 3500 memory system 12 of Fig. 1 and it is hard to see how the claimed architecture such as illustrated in Fig. 4 with a remote device 96, 98 between the hub and the “different” equipment of the downstream subscriber equipment can be found.

Claims 4-11 depend from claim 3 and are not anticipated by Gallagher et al at least for the reasons given above.

Withdrawal of the 35 U.S.C. §102(e) rejection of claims 3-11 is requested.

Regarding the 35 U.S.C. §102(e) rejection of claim 12, it is correct to say that Gallagher et al teach a rack for connection to an upstream network 14. The “rack,” in the form of a data server 10 as shown in Fig. 1 of Gallagher et al, is also connected to a memory system 12. The data server 10 of Fig. 1 of Gallagher et al has a plurality of shelves as claimed in claim 12 but it does not include any plurality of extender cards such as shown in Fig. 6 of the present disclosure since Gallagher et al does not anywhere show or suggest such a plurality of extender cards for use in the plurality of shelves except one shelf in which network termination equipment is used wherein the extender cards substitute for network termination equipment in each of said shelves except said one shelf. According to the applicants’ invention, the network termination equipment in said one shelf interconnects all of the line termination equipment in the rack by means of said plurality of extender cards.

It is also not correct to say that Gallagher et al shows a nonredundant shelf bus since everywhere in Gallagher et al a redundant Ethernet bus 24a, 24b is shown and described without any hint or suggestion at a nonredundant shelf bus.

The passage cited at column 9, lines 21-35 of Gallagher et al refers to the motherboard 67 of Fig. 5E which merely describes the processor, slots, and other equipment on the board. It does not show or suggest anything concerning extender cards such as claimed in claim 12.

Regarding the rejection of claim 32, it depends from claim 12 and is not anticipated by Gallagher et al for at least the reasons advanced above in overcoming

the rejection of claim 12 and withdrawal of the rejection of claim 32 for at least those reasons is also requested.

Withdrawal of the 35 U.S.C. §102(e) rejection of claim 12 is requested.

Regarding the 35 U.S.C. §102(e) rejection of claim 13, it has been amended to be more consistent with claim 1 and is patentable for the same reasons as given previously in connection with the rejection of claim 1.

Withdrawal of the 35 U.S.C. §102(e) rejection of claim 13 is requested.

Regarding the system of claim 30, it has been rejected along with its dependent claim 31 for obviousness based on Gallagher et al without combination with any other prior art reference. Instead, the Examiner refers to “elements well known in the art of telecommunication” for the proposition that it would have been obvious to substitute the elements in the Gallagher et al design by one of ordinary skill in the art at the time of the invention and “in order to produce an efficient telecommunication network for customer premises, thus reducing the cost and complexity of the design.”

The reasons advanced by the Examiner do not come from the Gallagher et al prior art reference or any other cited reference such as is required to establish a prima facie case of obviousness.

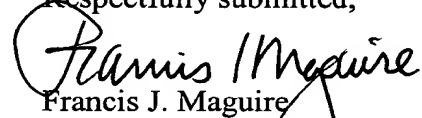
Since a prima facie case of obviousness has not been made, withdrawal of the 35 U.S.C. §103 rejection of claims 30-31 is requested.

Regarding the 35 U.S.C. §102(a) rejection of claims 33-34 as being anticipated by Sutherland et al. (U.S. 5,594,576), the Sutherland et al. reference does not have anything to do with a splitter shelf or lowpass filters therein and does not have anything to do with a highpass filter as claimed in claim 33.

Withdrawal of the 35 U.S.C. §102(a) rejection of claims 33-34 is requested.

The objections and rejections of the Office Action of July 18, 2005, having been obviated by amendment or shown to be inapplicable, withdrawal thereof is requested and passage of claims 1-37 to issue is requested.

Respectfully submitted,

A handwritten signature in black ink that reads "Francis J. Maguire". The signature is written in a cursive style with a large, looping initial "F".

Francis J. Maguire

Attorney for the Applicant

Registration No. 31,391

FJM/djc
Ware, Fressola, Van Der Sluys & Adolphson LLP
755 Main Street, P.O. Box 224
Monroe, CT 06468
(203) 261-1234